

ABSTRACT

A bioconjugate including a nanoparticle covalently linked to a biological vector molecule. The nanoparticle is a generally radioactive metal ion and most typically a metal sulfide or metal oxide. The biological vector molecule is typically a monoclonal antibody or fragment of a monoclonal antibody or a peptide having a known affinity to cancer cells. One or more additional, different biological moieties may be covalently linked to the nanoparticle in addition to the biological vector molecule to enhance its activity. The bioconjugate of the present invention has utility as an effective radiopharmaceutical to deliver a radiolabel in tumor treatment.

(Word 241692.1)